

2.44 USGS-020

WELL ID: 469

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: Southeast of INTEC
3. Date Maintenance Performed: Started: 11/20/02 Completed: 12/04/02
4. Video Log Information: Video logging was performed on 11/20/02.
5. Deviation Log Information: Deviation logging was performed on 11/20/02.
6. Maintenance Performed: Maintenance at USGS-20 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 469

WELL NAME USGS-020

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03

Reason for modification: Pump removed to perform a deviation log on the borehole.

Well Modification Log

START DATE 11/20/02

INSTALLATION TEAM Dynatec

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

END DATE 12/04/02

Signature and date: Mike Towler 12/10/02

Is this a pump replacement?

☐

yes

☒

no

If yes was pump returned to original depth?

☐

yes

☐

no

Are measurements from top of casing or land surface?

☐

yes

☐

no

NA

Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level/Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Comments:

The pump and pipe were replaced to their original depths. Deviation log was performed on 11/20/02.

Video Logs: yes X no

date 11/20/02

Well jetted /cleaned: yes no X date

Performed by: Dynatec

Figure 2-45. Well modification log for USGS-20.

2-89

2.45 USGS-048

WELL ID: 497

1. Project Name: INTEC Well Maintenance for FY 2003
 2. Well Location: INTEC
 3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/6/03
 4. Video Log Information: No video logging was performed.
 5. Maintenance Performed: Maintenance at USGS-048 consisted of replacing the existing surface pad. On 5/6/03, the existing surface pad was removed using crowbars and hammers. A new pad was installed the same day.
 6. Observations Recorded: Concrete intended to stabilize impingement posts is positioned above ground level due to excavation in the area. The brass cap should be resurveyed.
 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT
- Field Lead: B. Reynolds/W. Jolley
- Crew: D. Waddoups and Joe Lambert

WELL ID 497

WELL NAME USGS-048

PROJECT NAME INTEC Well Maintenance for FY 03

Reason for modification: Degradation of the surface pad.

Well Modification Log

START DATE 5/6/03

INSTALLATION TEAM Dynatec

END DATE 5/6/03

Is this a pump replacement?

☐ yes
☒ no

If yes was pump returned to original depth?

☐ yes
☒ no

Are measurements from top of casing or land surface?

☐ yes
☒ no

Elevation of brass cap? Resurvey

Stick up of well casing? Not Changed

Well Description

Casing condition	X	Needs repair
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Water Level Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified
Depth BLS	

Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	Not Modified

Comments:

Replaced surface pad. Brass cap should be resurveyed

Video Logs: yes no X date

Well jetted /cleaned: yes no X date

Performed by: Dynatec

Signature and date: Mike Towler 12/10/02

Figure 2-46. Well modification log for USGS-048.

2.46 USGS-049

WELL ID: 498

1. Project Name: INTEC Well Maintenance for FY 2003
 2. Well Location: INTEC
 3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/7/03
 4. Video Log Information: Video logging was not performed on this well.
 5. Maintenance Performed: Maintenance at USGS-049 was originally planned to consist of replacing the existing surface pad; however, it was in good shape. The field crew discovered that the problem was a void below the surface pad (approximately 3 to 6 in.). The void was filled with surface gravel from the surrounding area.
 6. Observations Recorded: The concrete surface pad and impingement posts are were excellent condition.
 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT
- Field Lead: B. Reynolds/W. Jolley
- Crew: S. Tawater, M. Becker, and I. Perkes

WELL ID	498
WELL NAME	USGS-049

INSTALLATION TEAM

WELL ID	PROJECT NAME	FY 03 Well Maintenance at INTEC

PROJECT NAME	REASON FOR MODIFICATION:	ELEVATION OF BASES AND?	NOT CHANGED
	To repair subsidence and impingement posts		

Reason for modification:

To repair subsidence and impingement posts

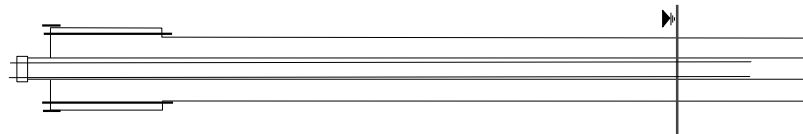
Elevation of brass cap? Not Changed
Stick up of wall ceiling? Not Changed

Is this a pump replacement? ☐ yes ☒ no

If yes was pump returned to original depth? ☐ N/A ☐ yes ☐ no

If yes was pump returned to original depth?

Are measurements from top of casing or land surface? NA



Use diagram explain modification

Pump Modification	
Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing	
Material	
Diameter	
Height above ground (stick-up)	

Casing condition	X
Concrete pad	X
Guard post	X
Screen	NA
Lock & cap	X

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point	Not Modified
Height above ground (stick-up)	

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Straightened impingement post and back-filled under concrete pad with dirt and gravel.

	X	date		
/video Logs:	yes	no		
			<i>Signature and date.</i>	
			Boe Reynolds	9/05/03

Well jetted /cleaned:	yes	no	X	date

Performed by: Dynatec

Figure 2-47. Well modification log for USGS-049.

2.47 USGS-051

WELL ID: 500

1. Project Name: Site-wide Well Maintenance for FY 2003
2. Well Location: INTEC
3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/12/03
4. Video Log Information: Video logging was performed on 5/7/03. There was no need to jet and clean the borehole.
5. Maintenance Performed: Maintenance at USGS-051 included removing the 1.5-hp pump, discharge/access pipe, and electrical assembly for logging; replacing old galvanized pipe with 1.25-in., stainless-steel discharge line and a 1-in., stainless-steel access line; and replacing the electrical wire with new 8-gauge wire equipped with a 30A/600V plug (NEMA #17-L30). The pump was energized to ensure that it operates properly (pumped 3 gal per minute) on 5/12/03.
6. Observations Recorded: The surface completion pad needs repair, but the impingement posts were in good condition.
7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 500
WELL NAME USGS-051

END DATE 5/12/03

START DATE	5/7/03
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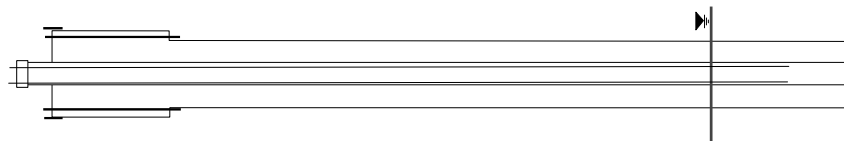
Dynatec

ANT DATE _____
INSTALLATION TEAM _____

Reason for modification:	Elevation of brass cap?	Not Changed
Replace galvanized access and discharge lines with stainless steel.	Replaced	Not Changed
old wiring with new 8 gauge wire.	Stick in of well casing?	Not Changed

Is this a pump replacement? ☒ yes ☐ no If yes was pump returned to original depth? ☒ yes ☐ no

Are measurements from top of casing or land surface? Land Surface



Use diagram explain modification

Type	
Manufacturer	
Model #	Not Modified
Pump length	
Top of pump	497 ft bls
Bottom of pump	Approximately 500.2 ft
Inlet depth	499.2 ft bls
Horse power	Not Modified
Flow rate	3 gpm
Head	Not Measured
Volts, Amps, Kw	
Phase	Not Modified
Material	
Motor leads/Plugs	8 gauge/600V, 30A plug

Material	No Modifications
Diameter	
Height above ground (stick-up)	

Lock & cap	X	
Caroon		X

Discharge Line (Riser Pipe) Modification

Material	Stainless Steel
Diameter	1.25 in.
Height above ground (stick-up)	3 ft
Depth BLS	497 ft

Water Level Access Line Modification

Material	Stainless Steel
Diameter	1 in.
Height above ground (stick-up)	3 ft
Depth BLS	485.3 ft

Measure Point

Height above ground (stick-up)	Not Modified
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Well Casing

Material	No Modifications
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments:

Video Logs: yes X no 5/7/03 date 5/7/03 Signature and date: Boe Reynolds 5/15/03

Well jetted /cleaned: yes ☒ no ☐ date _____

Performed by: Dynatec

Figure 2-48. Well modification log for USGS-051.

2.48 USGS-073

WELL ID: 522

1. Project Name: Site-wide Well Maintenance for FY 2003
2. Well Location: TRA parking lot
3. Date Maintenance Performed: Started: 6/27/03 Completed: 10/24/03
4. Video Log Information: Video logging was not performed on this well.
5. Maintenance Performed: Maintenance at USGS-073 included the installation of a 10-in.-diameter, carbon-steel section of casing such that the top of the casing sticks up 3 ft. The surface casing was completed with a cement surface pad, a lockable well cap, and four cement jersey barriers surrounding the well to prevent damage to the well by automobile traffic. The 6.6-in. well casing was extended to 2.5 ft above ground surface. A single-phase, 1/2-hp, Rediflo 2 pump was installed at 118 ft to monitor perched water. An access line was installed to 113 ft bls. The pump, however, was not functioning due to a wire that was cut approximately halfway down, so the pump was pulled, rewired, and reinstalled in October.

The measuring point of the well should be resurvey to measure the height more accurately than is possible with field measurements.

6. Observations Recorded: None.
7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

522 WEI ID

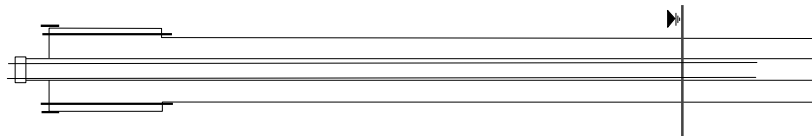
WELL NAME	USGS-073	START DATE	6/27/03	END DATE	10/24/03
PROJECT NAME	FY 03 Sited Wide Well Maintenance	INSTALLATION TEAM	Dynatec		

PROJECT NAME	INSTALLATION TEAM
FY 03 Sitewide wide well maintenance	Enable accessibility, install a pump and surface casing with a lockable well cap.

This well was located under a man hole in the TRA parking lot.

Is this a pump replacement? ☐ yes ☒ no If yes was pump returned to original depth? ☐ NA ☒ yes ☐ no

Are measurements from top of casing or land surface? Casing



Use diagram explain modification

Pump Modification	
Type	Submersible
Manufacturer	Grundfos
Model #	RediFlow 2
Pump length	1 ft
Top of pump	118 ft bls
Bottom of pump	119 ft bls
Inlet depth	119 ft bls
Horse power	.5 hp
Flow rate	Not Measured
Head	86.8 ft
Volts, Amps, Kw	Not Recorded
Phase	1 phase
Material	Stainless Steel
Motor leads/Plugs	Standard RediFlow 4 prong

Protective Casing

Material	Carbon Steel
Diameter	10 in.
Height above ground (stick-up)	3 ft

Comments:

Installed the .5 horse pump to obtain a trickle sample. Borehole is located in the middle of the TRA parking lot. Pump was installed in July, but was not functional due to a cut wire. The pump was rewired in October.

Video Logs: yes ☒ no ☐ date _____

Signature and date: _____

Boe Reynolds 8/5/03

Well jetted /cleaned: yes ☐ no ☐ date _____

Performed by: Dynatec

Figure 2-49. Well modification log for USGS-073.

2.49 USGS-085

WELL ID: 534

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: Northwest of CFA
3. Date Maintenance Performed: Started: 11/25/02 Completed: 12/03/02
4. Video Log Information: Video logging was performed on 11/26/02.
5. Deviation Log Information: Deviation logging was performed on 11/26/02.
6. Maintenance Performed: Maintenance at USGS-085 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

WELL ID 534

WELL NAME USGS-085

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 START DATE 11/25/02 END DATE 12/03/02

Dynatec

Reason for modification: Pump removed to perform a deviation log on the borehole. Elevation of brass cap? Not Changed

Is this a pump replacement? ☐ yes ☒ no

Are measurements from top of casing or land surface? NA

Use diagram explain modification

<i>Well Description</i>	Satisfactory	Needs repair
Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level Access Line Modification

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified
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Well Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Pump Modification

Type	Not Modified
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments:

The pump and pipe were replaced to their original depths.
Deviation was performed on 11/26/02.

Video Logs: yes ☒ no ☐ date 11/26/02

Well jetted /cleaned: yes ☐ no ☒ date _____

Performed by: _____ Dynatec _____

Signature and date: _____ Mike Towler 12/10/02

Figure 2-50. Well modification log for USGS-085.

2.50 USGS-088

WELL ID: 537

1. Project Name: Site-wide Well Maintenance for FY 2003
2. Well Location: South of RWMC
3. Date Maintenance Performed: Started: 6/12/03 Completed: 6/24/03
4. Video Log Information: A video was performed on 6/23/03. The video revealed corrosion of the casing and the need to jet and clean the borehole.
5. Maintenance Performed: Maintenance at USGS-088 included removing the pump, pipe, and electrical assembly; jetting and cleaning the borehole; installing a new 3-hp, 3-phase pump; exchanging old galvanized pipe for 1.25-in., stainless-steel discharge line and a 1-in., stainless-steel access line; and installing new 8-gauge insulated electrical wire equipped with a 30A/600V plug (NEMA #17-L30).
6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/W. Jolley

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, and T. Brower

537
WELL ID

WELL NAME USGS-088 START DATE 6/12/03 END DATE 6/24/03
PROJECT NAME FY-03 Sitedwide Well Maintenance INSTALLATION TEAM Dynatec

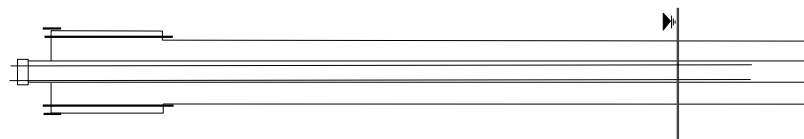
Dynatec

Reason for modification:	Elevation of brass cap?	Not Changed
Replaced the pump, pipe, and electrical assembly and jetted and cleaned the borehole		Not Changed

Is this a pump replacement? ☒ yes ☐ no

If yes was pump returned to original depth? ☐ yes ☒ no

Are measurements from top of casing or land surface? Casing



Use diagram explain modification

Pump Modification	
Type	Submersible
Manufacturer	Grundfos/ Franklin Electric
Model #	10S30-34
Pump length	4.58 ft
Top of pump	651.7 ft
Bottom of pump	656.5 ft
Inlet depth	655.5 ft
Horse power	3 hp
Flow rate	Not Measured
Head	Not Measured
Volts, Amps, Kw	230V/9.5A/2.2Kw
Phase	3 ph
Material	Stainless Steel
Motor leads/Plugs	8 gauge (30A/600V plug)

Protective Casing

Material	Not Modified
Diameter	
Height above ground (stick-in)	

Added 21 ft of discharge line (1.25 in stainless steel)

Video Logs: yes ☒ no ☐ date 6/23/03

Well jetted / cleaned: yes ☒ no ☐ date 6/23/03

Performed by: Dynatec

Signature and date: Boe Reynolds 8/5/03

Figure 2-51. Well modification log for USGS-088.

2.51 USGS-111

WELL ID: 560

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: South of INTEC
3. Date Maintenance Performed: Started: 11/13/02 Completed: 11/20/02
4. Video Log Information: Video logging was performed on 11/15/02.
5. Deviation Log Information: Deviation logging was performed on 11/15/02.
6. Maintenance Performed: Maintenance at USGS-111 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logging. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 560

WELL NAME USGS-111

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03

Reason for modification: Pump removed to perform a deviation log on the borehole.

START DATE 11/13/02

INSTALLATION TEAM Dynatec

END DATE 11/20/02

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

Is this a pump replacement? ☒ yes ☐ no

If yes was pump returned to original depth? ☐ yes ☒ no

Are measurements from top of casing or land surface? NA

Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level/Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Well Description

Casing condition	
Concrete pad	
Guard post	
Screen	
Lock & cap	

Satisfactory

X
X
X
X
X

Needs repair

Comments:

The pump and pipe were replaced to their original depths. Deviation log was performed on 11/15/02.

Video Logs: yes X no

date 11/15/02

Signature and date: Mike Towler 12/10/02

Well jetted /cleaned: yes no X

date

Performed by: Dynatec

Figure 2-52. Well modification log for USGS-111.

2.52 USGS-112

WELL ID: 561

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: South of INTEC
3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/20/02
4. Video Log Information: Video logging was performed on 11/15/02.
5. Deviation Log Information: Deviation logging was performed on 11/15/02.
6. Maintenance Performed: Maintenance at USGS-112 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 561 **Well Modification Log** START DATE 11/14/02 END DATE 11/20/02
 WELL NAME USGS-112
 PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec
 Reason for modification: Pump removed to perform a deviation log on the borehole. Elevation of brass cap? Not Changed
 Stick up of well casing? Not Changed

Is this a pump replacement? ☐ yes ☒ no If yes was pump returned to original depth? ☐ NA ☐ yes ☐ no

Are measurements from top of casing or land surface? NA

Use diagram explain modification

Pump Modification	
Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	
Protective Casing	
Material	
Diameter	
Height above ground (stick-up)	

Well Description		
Casing condition	Satisfactory	Needs repair
Concrete pad	X	
Guard post	X	
Screen	X	
Lock & cap	X	

Discharge Line (Riser Pipe) Modification	
Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level/Access Line Modification	
Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point	
Height above ground (stick-up)	

Well Casing	
Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original locations.
Deviation log was performed on 11/15/02.

Video Logs: yes X no date 11/15/02 Signature and date: Mike Towler 12/10/02
 Well jetted /cleaned: yes no X date
 Performed by: Dynatec

Figure 2-53. Well modification log for USGS-112.

2.53 USGS-113

WELL ID: 562

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: South of INTEC
3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/20/02
4. Video Log Information: Video logging was performed on 11/20/02.
5. Deviation Log Information: Deviation logging was performed on 11/20/02.
6. Maintenance Performed: Maintenance at USGS-113 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

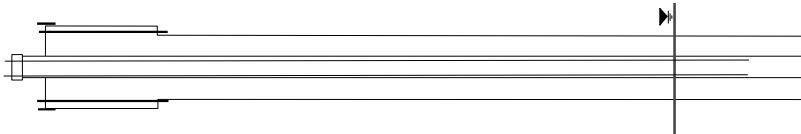
Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 562 **Well Modification Log** START DATE 11/19/02 END DATE 11/20/02
WELL NAME USGS-113
PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec
Reason for modification: Pump removed to perform a deviation log on the borehole. Elevation of brass cap? Not Changed

Is this a pump replacement? ☐ yes ☒ no If yes was pump returned to original depth? ☐ NA ☐ yes ☐ no
Are measurements from top of casing or land surface? NA

Use diagram explain modification



Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level/Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths.
Deviation log was performed on 11/20/02.

Video Logs: yes ☒ no ☐ date 11/20/02 Signature and date: Mike Towler 12/10/02
Well jetted /cleaned: yes ☐ no ☒ date _____
Performed by: Dynatec

Figure 2-54. Well modification log for USGS-113.

2.54 USGS-114

WELL ID: 563

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: South of INTEC
3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/20/02
4. Video Log Information: Video logging was performed on 11/20/02.
5. Deviation Log Information: Deviation logging was performed on 11/20/02.
6. Maintenance Performed: Maintenance at USGS-114 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

Well Modification Log

Comments:
The pump and pipe were replaced to their original depths.
Deviation log was performed on 11/20/02.

Video Logs: yes ☒ no ☐ date 11/20/02

Well jetted / cleaned: yes ☐ no ☒ date _____

Performed by: _____ Dynatec

Signature and date: _____ Mike Towler 12/10/02

Figure 2-55. Well modification log for USGS-114.

2.55 USGS-115

WELL ID: 564

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: South of INTEC
3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/21/02
4. Video Log Information: Video logging was performed on 11/20/02.
5. Deviation Log Information: Deviation logging was performed on 11/20/02.
6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. The USGS collected video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 564 **Well Modification Log** START DATE 11/19/02 END DATE 11/21/02
 WELL NAME USGS-115
 PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03 INSTALLATION TEAM Dynatec
 Reason for modification: Pump removed to perform a deviation log on the borehole. Elevation of brass cap? Not Changed

Is this a pump replacement? ☒ yes ☐ no If yes was pump returned to original depth? ☐ yes ☒ no
 Are measurements from top of casing or land surface? NA

Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Discharge Line (Riser Pipe) Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Water Level/Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments: The pump and pipe were replaced to their original depths. Deviation log was performed on 11/20/02.

Video Logs: yes ☒ no ☐ date 11/20/02 Signature and date: Mike Towler 12/10/02
 Well jetted /cleaned: yes ☐ no ☒ date _____
 Performed by: Dynatec

Figure 2-56. Well modification log for USGS-115.

2.56 USGS-122

WELL ID: 571

1. Project Name: INTEC Well Maintenance for FY 2003
2. Well Location: Southwest of INTEC
3. Date Maintenance Performed: Started: 5/13/03 Completed: 5/14/03
4. Video Log Information: Video logging was performed on 5/13/03.
5. Maintenance Performed: Maintenance at this well consisted of replacing the pump. The original pipe was used to install a new 1-hp, single-phase, Grundfos pump on 5/14/03. New 8-gauge electrical wire was equipped with a NEMA #17-L30 plug. The pump was installed to the original depth (472 ft bls) with a weep hole 20 ft above the top of the pump. It was energized to ensure proper operation on 5/14/03.
6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: Bob Empey

Crew: Gary Jensen and Louis Rosario

Well Modification Log

Use diagram explain modification

Comments: _____
 Installed a new pump, pipe and electrical cable. No other modifications were made.

 A weep hole was drilled in the discharge line at 449.5 ft

Video Logs: yes ☒ no ☐ date 5/13/03 _____
 Signature and date: _____ Boe Reynolds 8/5/03

Well jetted /cleaned: yes ☐ no ☒ date _____

Performed by: _____ Dynatec

Figure 2-57. Well modification log for USGS-122.

2.57 USGS-123

WELL ID: 572

1. Project Name: Well Maintenance for FY 2003
2. Well Location: Southwest of INTEC
3. Date Maintenance Performed: Started: 8/28/03 Completed: 9/21/03
4. Video Log Information: Video logging was performed on 8/28/03.
5. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. A video log was completed on 8/28/03. The pump, riser, water level access line, and wiring were reinstalled to 476.2 ft bls, 10 ft lower than the previous depth.
6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

2.58 USGS-128

WELL ID: 1413

1. Project Name: Pump Removal and Deviation Logging for FY 2003
2. Well Location: Northwest of CFA
3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/21/02
4. Video Log Information: Video logging was performed on 11/20/02.
5. Deviation Log Information: Deviation logging was performed on 11/20/02.
6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. The USGS collected video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, T. Brower, and I. Perkes

WELL ID 1413

WELL NAME USGS-128

PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03

Reason for modification: Pump removed to perform a deviation log on the borehole.

Well Modification Log

START DATE 11/19/02

INSTALLATION TEAM Dynatec

Elevation of brass cap? Not Changed

Stick up of well casing? Not Changed

END DATE 11/21/02

Signature and date: Mike Towler 12/10/02

Is this a pump replacement?

yes

X

no

If yes was pump returned to original depth?

NA

yes

no

Are measurements from top of casing or land surface?

NA

Use diagram explain modification

Pump Modification

Type	
Manufacturer	
Model #	
Pump length	
Top of pump	
Bottom of pump	
Inlet depth	
Horse power	
Flow rate	
Head	
Volts, Amps, Kw	
Phase	
Material	
Motor leads/Plugs	

Protective Casing

Material	
Diameter	
Height above ground (stick-up)	

Discharge Line (Riser Pipe) Modification

Casing condition	X	
Concrete pad	X	
Guard post	X	
Screen	NA	
Lock & cap	X	

Water Level Access Line Modification

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Measure Point

Height above ground (stick-up)	Not Modified
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Well Casing

Material	
Diameter	
Height above ground (stick-up)	
Depth BLS	

Comments:

The pump and pipe were replaced to there original locations.

Deviation log was performed on 11/20/02.

Video Logs: yes X no

Well jetted /cleaned: yes no X

Performed by: Dynatec

Figure 2-59. Well modification log for USGS-128.

2-117

3. SUMMARY

Maintenance conducted in FY 2003 included 17 wells that were not on the work-off schedule. Any well that required work by Well Services personnel was considered as having been maintained. Unscheduled maintenance included the removal of materials from wells used for deviation logging conducted by the USGS. Wells in which fouling or bacterial growth were identified before or during logging were cleaned and jetted. Well Services was informed of wells with problems identified during routine sampling (e.g., bailers or weights lodged in the well), and those wells were added to the schedule and maintained as part of the routine maintenance. Although those wells were not scheduled for any maintenance, the maintenance conducted on them is included in this report to record the completed actions and avoid duplication of efforts in coming years. Wells receiving unscheduled maintenance are listed below.

The concrete surface pads of several wells identified in the previous section were replaced. The brass caps for these wells (i.e., PW-2, PW-4, and USGS-048) will require a survey to measure the new position of the cap. Well USGS-073 was modified by the addition of surface casing. The measuring point for USGS-073 should be surveyed to provide a more accurate height than may be obtained by normal field measurements.

Fourteen wells included in the work-off schedule were not maintained due to the number of wells requiring priority maintenance. These 14 wells will be rescheduled. Wells scheduled but not maintained are PW-11, PW-12, TANT-INJ-A-13, USGS-21, USGS-46, USGS-50, USGS-53, USGS-54, USGS-55, USGS-56, USGS-58, USGS-65, USGS-67, and USGS-71.

Seventeen wells that were not scheduled for maintenance in FY 2003 were maintained as priority wells. These wells should be reviewed against the work-off schedule to ensure that maintenance completed during FY 2003 is not duplicated in subsequent years. Unscheduled wells that were maintained are Fire Station, ICPP-1782, ICPP-1783, ICPP-1800, ICPP-1829, ICPP-1831, ICPP-MON-A-230, ICPP-MON-P-018, ICPP-MON-P-020, ICPP-SCI-P-249, LF2-08, M10S (abandoned well), SOUTH-MON-A-001, TANT-MON-A-013, TANT-MON-A-014, USGS-009, and USGS-122.

4. REFERENCES

INEEL, 2003, *Well Maintenance Work-off Schedule for Fiscal Years 2003, 2004, and 2005*, INEEL/EXT-02-01462, Rev. 0, Idaho National Engineering and Environmental Laboratory, January 2003.

